

Health Care Workers and Asthma

'Occupational asthma' is a risk for nurses.

? I was just diagnosed with asthma. I never had it as a child, I don't smoke, and I'm not allergic to latex. My symptoms improve when I'm away from work. I have worked in the same hospital for 10 years and haven't had a problem until recently. Is it unusual for nurses to get occupational asthma?

Asthma can develop at any time during a person's life, even without a history of allergies or asthma; at least 15% of adult asthma cases may be work-related, according to the American Thoracic Society. But nurses and other health care workers don't expect to get sick from work and often don't make the connection between their work and their symptoms—nor do their primary care providers. Asthma among health care workers has not been well recognized, with the exception of latex-associated asthma. Nonetheless, occupational asthma should be suspected whenever a working adult is diagnosed.

What is occupational asthma? Occupational asthma is one of several types of work-related asthma, which is broadly defined as asthma caused or made worse by on-the-job exposure. The term

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occupational asthma is usually reserved for new-onset asthma caused by sensitizers (a chemical that can cause an allergic reaction in normal tissue after repeated exposure) in the workplace. After initial exposure, there may be a latency period of months to years before symptoms begin. Once sensitized, a person may react to a variety of exposures both in and outside the workplace.

How many health care workers have work-related asthma? Health care workers, especially nurses, seem to have more work-related asthma than expected. Health care workers accounted for 16% of 1,879 work-related asthma cases, as reported between 1993 and 1999 to the National Institute for Occupational Safety and Health (NIOSH) from surveillance systems in California, Massachusetts, Michigan, and New Jersey. The health care industry accounted for more cases than any other industry in three of the four states. Data showed that among these health care workers, most worked in hospitals; nurses made up the largest proportion (more than 40%) of all cases.

What causes or triggers the asthma? In a 2005 study by Pechter and colleagues in the *American Journal of Industrial Medicine*, nurses with work-related asthma reported exposure to latex most frequently, followed by cleaning products, including disinfectants. Also reported were glutaraldehyde, formaldehyde, and exposures associated with indoor air problems, such as construction chemicals, new carpet, dust, mold, smoke, and perfume. In other cases, the specific agent

Resources

Additional information is available at the following Web sites.

- www.cdc.gov/niosh/topics/healthcare
- www.cdc.gov/niosh/topics/surveillance/ORDS
- www.osha.gov/SLTC/etools/hospital/hazards/hazchem/haz.html
- www.sustainablehospitals.org

Nurses and other health care workers have an unprecedented opportunity to share their ideas with the NIOSH about what they consider to be the top safety and health problems facing health care workers. The NIOSH is seeking input about health and safety challenges in health care as part of the National Occupational Research Agenda. To submit your ideas, visit www.cdc.gov/niosh/nora.

could not be identified. Health care workers were more likely than other workers to report exposure to chemicals known to be sensitizers.

What can I do to protect myself, my coworkers, and my patients? Learn about the chemicals and substances used on your unit and in your facility; less harmful, alternative substances may exist. You have the legal right to access material safety data sheets of substances used in your workplace.

Participate in your institution's safety and health committee to help in the following ways:

- Select and purchase products that are safe and effective.
- Replace latex materials with synthetics.
- Use enclosed systems and ventilation to prevent or reduce exposures.
- Isolate construction work and schedule cleaning activities to reduce the number of people exposed. ▼